

ABSTRACT

A temperature control system for use in a fiber extrusion process includes a number of metering pump assemblies including inlets to receive at least two molten polymer streams from a supply source that is connectable to the system. A pump block disposed proximate the metering pump assemblies includes a plurality of flow paths extending within the pump block, where the flow paths are aligned to receive molten polymer flowing from outlets of the metering pump assemblies and to deliver the molten polymer to a spinneret. The flow paths are arranged in flow path sets within the pump block, and each flow path set includes at least one flow path and is spaced a selected distance from the other flow path sets within the pump block so as to facilitate independent control of the temperature of a molten polymer flowing through each flow path set.